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10/692,765	10/24/2003	David S. Ebbo	40062.0269US01	8944
27488 7590 12/15/2008 MERCHANT & GOULD (MICROSOFT) P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903				
EXAMINER				
DAO, THUY CHAN				
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2192				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/692,765

Applicant(s)

EBBO ET AL.

Examiner

Thuy Dao

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 5-18 is/are pending in the application.
- 4a) Of the above claim(s) 3, 4, 19, 20 and 35-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to the amendment filed on October 17, 2008.
2. Claims 1 and 5-18 have been examined.

Response to Amendments

3. In the instant amendment, claims 1 and 8 have been amended and claims 2-4, 19, 20, and 35-38 have been canceled.

Response to Arguments

5. Applicants' arguments have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections – 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 and 5-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,560,774 to Gordon et al. (art made of record, hereinafter "Gordon") in view of Sully (art of record, "ASP.NET Configuration Files") and "Special Edition Using Microsoft ASP.NET" to Leinecker (art made of record, hereafter "Leinecker").

Claim 1:

Gordon discloses *one or more processor-accessible storage media comprising processor-executable instructions that, when executed, direct a device to perform file compilation actions comprising:*

accepting a plurality of files, each file of the plurality of files corresponding to a respective file type and including source code, wherein at least two files have different file types (e.g., FIG. 2, Visual Basic VB, Visual C++ VC++, Pascal, col.6: 8-57),

instantiating an instance of a build provider associated with each of the plurality of files; associating a build provider with each file of the plurality of files in accordance with the corresponding respective file type (e.g., FIG. 2, VB Compiler, VC++ Compiler, Pascal Compiler, col.6: 34 – col.7: 16);

maps respective file types of the plurality of file types to respective build providers of a plurality of build providers (e.g., FIG. 23, col.27: 11 – col.28: 7),

requesting from each respective build provider the build provider's usable language; ascertaining the source code of each file of the plurality of files via the associated build provider (e.g., col.3: 30 – col.4: 33; col.6: 8-57);

ascertaining one or more resources of each file of the plurality of files via the associated build provider (e.g., FIG. 23, Metadata Engine, Native Code and Metadata, OptIL and Metadata, COM and Base Class Library, col.27: 11 - col.28: 7); and

launching a compiler to compile the ascertained source code and the one or more resources of each file of the plurality of files into an assembly (e.g., FIG. 2, col.6: 34 – col.7: 16);

wherein a build provider manager instantiates the plurality of build providers needed to accomplish the file compilation actions, and manages and controls the plurality of build providers to facilitate the file compilation actions (e.g., col.3: 30 - col.4: 33; col.6: 8-57; col.27: 11 - col.28: 7).

Gordon does not explicitly disclose other limitations.

However, in an analogous art, Sully further discloses:

accessing a build provider registration-mapping data structure (e.g., page 1, ASP.NET configuration files; page 5, compilation settings)

that maps respective file types of the plurality of files to a respective build provider, wherein a new build provider is registered by updating the build provider

registration-mapping data structure to include a new entry that maps a new file type to the new build provider. (e.g., page 6, lines 1-19, entries to register file types <extension> to build providers <compiler>);

wherein a build provider manager accesses the build provider registration-mapping data structure (e.g., page 1, ASP.NET framework using configuration file),

instantiates the plurality of build providers needed to accomplish the file compilation actions based on the registration-mapping data structure, and manages and controls the plurality of build providers to facilitate the file compilation actions (e.g., pp. 5-6, compilation settings including <compiler> and <assemblies>).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Sully's teaching into Gordon's teaching. One would have been motivated to do so to configure compilation settings for use when the .NET framework dynamically compiles resources, which typically are three compilers for VB, C#, and JavaScript as suggested by Sully (e.g., page 5, last two lines and page 6, lines 28-31).

Neither Gordon nor Sully explicitly discloses *providing each respective build provider a path to its associated file by calling a respective file path interface.*

However, in an analogous art, Leinecker further discloses:

associated file (e.g., chapter 7, page 8, assemblies);

a path to associated file (e.g., chapter 7, pp. 7-8, either "/bin" or "global cache");

build provider (e.g., chapter 2, pp. 1-4, ASP.NET languages includes at least Visual Basic VB compiler, C-sharp C# compiler; JavaScript Jscript compiler);

providing each respective build provider a path to its associated file by calling a respective file path interface (e.g., chapter 7, explicitly loading assemblies from the "global cache" or telling ASP.NET loading assemblies from "/bin").

Claim 5:

The rejection of claim 1 is incorporated. Gordon discloses *at least a portion of the processor-executable instructions comprise at least part of an operating system* (e.g., FIG. 1, col.4: 34 – col.5: 43).

Claim 6:

The rejection of claim 1 is incorporated. Gordon discloses *at least a portion of the processor-executable instructions comprise at least part of a program that is capable of establishing a runtime environment* (e.g., col.3: 30 – col.4: 33; col.6: 8-57).

Claim 7:

The rejection of claim 1 is incorporated. Gordon discloses *the one or more processor-accessible media comprise at least one of one or more storage media* (e.g., col.6: 34 – col.7: 16; col.27: 11 – col.28: 7).

Claim 8:

Gordon discloses *one or more processor-accessible storage media comprising processor-executable instructions that, when executed, direct a device to perform actions comprising:*

maps respective file types of the plurality of file types to respective build providers of a plurality of build providers (e.g., FIG. 2, col.6: 34 – col.7: 16),

creating an associated build provider for each associated file of a the plurality of files, wherein at least two files have different file types; giving each associated build provider a path to its associated file (e.g., FIG. 23, col.27: 11 – col.28: 7);

requesting each associated build provider to contribute code of its associated file (e.g., FIG. 23, Metadata Engine, Native Code and Metadata, OptIL and Metadata, COM and Base Class Library, col.27: 11 - col.28: 7) *and*

compiling the contributed code of each associated file into an assembly (e.g., FIG. 2, col.6: 8-57; col.3: 30 – col.4: 33).

Gordon does not explicitly disclose *accessing a configuration file including a data structure that maps respective file types of the plurality of file types to respective build providers of a plurality of build providers, wherein a new build provider is registered by updating the data structure of the configuration file to include a new entry that maps a new file type to the new build provider.*

However, in an analogous art, Sully further discloses:

accessing a configuration file including a data structure that maps respective file types of the plurality of file types to respective build providers of a plurality of build providers (e.g., page 1, ASP.NET configuration files; page 5, compilation settings),

wherein a new build provider is registered by updating the data structure of the configuration file to include a new entry that maps a new file type to the new build provider (e.g., e.g., page 6, lines 1-19, entries to register file types <extension> to build providers <compiler>).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Sully's teaching into Gordon's teaching. One would have been motivated to do so to configure compilation settings for use when the .NET framework dynamically compiles resources, which typically are three compilers for VB, C#, and JavaScript as suggested by Sully (e.g., page 5, last two lines and page 6, lines 28-31).

Neither Gordon nor Sully explicitly discloses *giving each associated build provider a path to its associated file; requesting each associated build provider to contribute code of its associated file; and compiling the contributed code of each associated file into an assembly under direction and control of the build provider manager.*

However, in an analogous art, Leinecker further discloses:

associated file (e.g., chapter 7, page 8, assemblies);

a path to associated file (e.g., chapter 7, pp. 7-8, either "/bin" or "global cache");

build provider (e.g., chapter 2, pp. 1-4, ASP.NET languages includes at least Visual Basic VB compiler, C-sharp C# compiler; JavaScript Jscript compiler);

giving each associated build provider a path to its associated file; requesting each associated build provider to contribute code of its associated file (e.g., chapter 7, pp. 7-8, explicitly loading assemblies from the "global cache" or telling ASP.NET loading assemblies from "/bin"); *and*

compiling the contributed code of each associated file into an assembly under direction and control of the build provider manager (e.g., chapter 1, pp. 1-6, ASP.NET framework; chapter 7, pp. 7-8, adding/contributing <assemblies> from either "/bin" or "global cache").

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Leinecker's teaching into Gordon and Sully's teaching. One would have been motivated to do so to configure compilation settings for use when the .NET framework dynamically compiles resources, which typically are three compilers for VB, C#, and JavaScript as suggested by Sully (e.g., page 5, last two lines and page 6, lines 28-31) and Leinecker (e.g., chapter 2, pp. 1-4; chapter 7, pp. 7-8).

Claim 9:

The rejection of claim 8 is incorporated. Gordon discloses *direct the device to perform a further action comprising: accepting the plurality of files, each file of the plurality of files corresponding to a different file type* (e.g., col.27: 11 – col.28: 7).

Claim 10:

The rejection of claim 9 is incorporated. Gordon discloses *the action of creating further comprises an action of: instantiating the associated build provider for each associated file of the plurality of files according to the corresponding different file type of each associated file* (e.g., col.6: 8-57).

Claim 11:

The rejection of claim 8 is incorporated. Gordon discloses *direct the device to perform a further action comprising: asking each associated build provider for its usable code language* (e.g., col.3: 30 – col.4: 33; col.6: 34 – col.7: 16).

Claim 12:

The rejection of claim 8 is incorporated. Gordon discloses *the processor-executable instructions that, when executed, direct the device to perform a further action comprising: receiving one or more resources from at least one associated build provider* (e.g., col.6: 8-57).

Claim 13:

The rejection of claim 12 is incorporated. Gordon discloses *the action of compiling further comprises an action of: compiling the contributed code of each associated file and the one or more resources from at least one associated build provider into the assembly* (e.g., FIG. 23, col.27: 11 – col.28: 7).

Claim 14:

The rejection of claim 8 is incorporated. Gordon discloses *the action of compiling further comprises an action of: constructing at least one of an object code file, an executable file, a dynamically linked library (DLL) file, and an intermediate language (IL) file* (e.g., col.6: 8-57; col.3: 30 – col.4: 33).

Claim 15:

The rejection of claim 8 is incorporated. Gordon discloses *the action of giving further comprises an action of: calling a file path interface on each associated build provider* (e.g., col.6: 34 – col.7: 16).

Claim 16:

The rejection of claim 8 is incorporated. Gordon discloses *the action of requesting further comprises an action of: calling a generate code interface on each associated build provider* (e.g., col.6: 8-57).

Claim 17:

The rejection of claim 8 is incorporated. Gordon discloses *direct the device to perform a further action comprising: acquiring the contributed code of each associated file via each associated build provider responsive to the action of requesting* (e.g., col.27: 11 – col.28: 7)

Claim 18:

The rejection of claim 17 is incorporated. Gordon discloses *the action of acquiring further comprises at least one of the following actions: retrieving the contributed code from a stipulated path location; retrieving the contributed code from a created code object; and retrieving the contributed code as a code compile unit* (e.g., col.3: 30 – col.4: 33; col.27: 11 – col.28: 7).

Conclusion

8. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication should be directed to examiner Thuy Dao (Twee), whose telephone/fax numbers are (571) 272 8570 and (571) 273 8570, respectively. The examiner can normally be reached on every Tuesday, Thursday, and Friday from 6:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached at (571) 272 3695.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Thuy Dao/
Examiner, Art Unit 2192

/Tuan Q. Dam/
Supervisory Patent Examiner, Art Unit 2192